**Image Extensions**

* GIF – Graphics Interchange Format
* JPEG or JPG –Joint Photographic Experts Group
* PNG – Portable Network Graphics
* TIF - Tagged Image File Format Do not use
* BMP – Do not use

**Transparency**

Transparency is important for two reasons. Transparency allows you to create complex layouts by making one image move behind another. Second, you can take advantage of transparency to give an image a non-rectangular outline, adding visual interest to your page. Both GIF and PNG allow transparency. JPEG does not.

**Animation**

Animated pictures can be saved in GIF format. JPEG does not allow animation.

**Monitors**

Monitor effect how the image will be display. The more bits a monitor has the more colors can be used.

24 bit monitors – True color 16,777,216 colors

16 bit monitors – 65,536 colors

8 bit monitors – 256 colors

## HTML Images Syntax

In HTML, images are defined with the **<img>** tag. The <img> tag is empty, it contains attributes only, and does not have a closing tag. The **src** attribute defines the url (web address) of the image:

<img src="*url*" alt="*some\_text*">

## The alt Attribute

The **alt** attribute specifies an alternate text for the image, if it cannot be displayed. The value of the alt attribute should describe the image in words:

**Example**

<img src="html5.gif" alt="The official HTML5 Icon">

The alt attribute is **required**. A web page will not validate correctly without it.

**Creating an image in a Web Page**

To put an image in a Web Page, use the <img src =”image.url” /> where the image.url indicates the location of the image file on the server. You may have to use <p> or <br> to start the image on its own line.

Remember that too many pictures slow the download speed. People on average wait 10 seconds before moving on.

**Attributes**

There is an attribute in the <img src = “image.url” border = “#”/> where # represents a number that is the width in pixels. Another attribute is alt = – Replaces the image with text incase the image doesn’t appear. Alt attribute is require in all HTMLs (HTML or XHTML) Another attribute is the title = “Text” is a tool tip in most browsers. When the mouse points on the image a tool tip appears with the text displayed.

**Get a size of an Image**

Right click on image and select “Properties” to get dimension of image in pixels.

**Set the size of images for speedier viewing**

Attributes of the <img> tag. width = “x” & height = “y” where x & y represents your image size. Or use the style attribute used in the example below.

By setting your size in the <img> tag, makes the website download faster. It knows where to put the text before the image is loaded. If the width & height attribute are not present, the text will not be loaded until image is loaded.

EXAMPLE using style

<!DOCTYPE html>  
<html>  
<body>  
 <h2>Spectacular Mountains</h2>  
 <img src="pic\_mountain.jpg" alt="Mountain View" style="width:304px;height:228px">  
</body>  
</html>

## Note: Always specify image size. If the size is unknown, the page will flicker while the image loads.

## Width and Height or Style?

Both the width, the height, and the style attributes, are valid in the latest HTML5 standard. We suggest you use the style attribute. It prevents styles sheets from changing the default size of images:

## Example

<!DOCTYPE html>  
<html>  
<head><style>  
  img { width:100%; }  
</style></head>  
<body>  
<img src="html5.gif" alt="HTML5 Icon" style="width:128px;height:128px">  
<img src="html5.gif" alt="HTML5 Icon" width="128" height="128">  
</body>  
</html>

**Creating Thumbnails Links**

For very large images use thumbnail images which will link to the larger image which must be saved on the server with your html document.

**Example:**

<a href = “image.jpg”> where image.jpg is the location of the full-sized image on your server. Then type the <img src = “mini.jpg” alt = “alternate text”/></a>

<a href = “ “> </a> creates a link which takes you to the address in the “ “.

**Make Images Float**

Using the attribute align, which allows you to wrap text around the image.

Example:

<img src = “image.jpg” align = “left”/> text will wrap around the right side of image.

<img src = “image.jpg” align = “right”/> text will wrap around the left side of image.

Image must be place in front of text so the wrap can occur.

**Stop Wrapping**

To stop wrapping text around an image uses the tag <br/>.

Example:

<br clear = “left”/> - stop wrapping text on the left side of image.

<br clear = “right”/> - stop wrapping text on the right side of image.

<br clear = “all”/> - stop wrapping text on all floating images.

**Space around an Image**

Image tag has attributes to adjust the horizontal and vertical space around an image. The two attributes found in the <img> tag are hspace = “x” & vspace = “y”.

Example:

<img src = “image” hspace = “43” vspace = “43”/>

**Aligning Images with text**

The align attribute of an image tag <img> can be used to determine where the text appears next to an image during wrapping. Align = “direction” where direction is texttop, absmiddle, or absbottom,

Example:

<img src = “image” align = “texttop”/> or <img src = “image” align = “top”/> etc..

## HTML Screen Readers

Screen readers are software programs that can read what is displayed on a screen. Used on the web, screen readers can "reproduce" HTML as text-to-speech, sound icons, or braille output. Screen readers are used by people who are blind, visually impaired, or learning disabled.

## Note: Screen readers can read the ****alt**** attribute.

## Images in another Folder

If not specified, the browser expects to find the image in the same folder as the web page. However, it is common on the web, to store images in a sub-folder, and refer to the folder in the image name:

## Example

<img src="/images/html5.gif" alt="HTML5 Icon" style="width:128px;height:128px">

If a browser cannot find an image, it will display a broken link icon:

## Example

<img src="wrongname.gif" alt="HTML5 Icon" style="width: 128px; height: 128px">

## Images on another Server

Some web sites store their images on image servers. Actually, you can access images from any web address in the world:

## Example

<img src="http://www.w3schools.com/images/w3schools\_green.jpg">

**Horizontal Rule**

You can create a horizontal rule which is a line across your screen using the tag <hr>. There are several attributes with the <hr> tag.

Size = “n” – n represents the height in pixels

Width = “n” – n is the width in pixels or could be percent of webpage width

Align = “left, center or right” – left align, center align, or right align

Noshade = “noshade” – creates a solid bar

Example

<hr size = “10” width = “80%” align = “center” noshade = “noshade”/>

**LAB**

**Step 1:** Download two images of Abe Lincoln from the Internet and name them image1.jpg or gif and image2.jpg or gif.

**Step 2:** Create an HTML Document and insert the 4 major tags (html,head,title,body)

**Step 3:** Type the following between the Open & Closed Body tags

<body>  
<h1 align = “center”> Gettysburg Address</h1>

<hr size = “16” width = “90%” align = “center” noshade = “noshade”/>

<p>**Four score and seven years ago our fathers brought forth on this continent, a new nation, conceived in Liberty, and dedicated to the proposition that all men are created equal.**

**Now we are engaged in a great civil war, testing whether that nation or any nation so conceived and so dedicated, can long endure. We are met on a great battle-field of that war. We have come to dedicate a portion of that field, as a final resting place for those who here gave their lives that that nation might live. It is altogether fitting and proper that we should do this.**

**<img src = “image1.jpg” width = “150” height = “200” align = “right” alt = “Picture of Abe Lincoln”/>**

**But, in a larger sense, we cannot dedicate -- we cannot consecrate -- we cannot hallow -- this ground. The brave men, living and dead, who struggled here, have consecrated it, far above our poor power to add or detract. The world will little note, nor long remember what we say here, but it can never forget what they did here. It is for us the living, rather, to be dedicated here to the unfinished work which they who fought here have thus far so nobly advanced. It is rather for us to be here dedicated to the great task remaining before us -- that from these honored dead we take increased devotion to that cause for which they gave the last full measure of devotion -- that we here highly resolve that these dead shall not have died in vain -- that this nation, under God, shall have a new birth of freedom -- and that government of the people, by the people, for the people, shall not perish from the earth.**

**<img src = “image2.jpg” width = “150” height = “200” align = “left” vspace = “43” hspace = “43” />**

**Abraham Lincoln  
November 19, 1863**

</p>

</body>

**Step 4:** Save as Labchp3.html

**Step 5:** View in several browsers

**QUESTIONS:**

1. What affect did the attribute noshade have a horizontal line?
2. What is the difference between using a number or a percent with the attribute width of the tag <HR>?
3. How can you speed up image viewing?
4. Did the text wrap around the images?

**PART 2 Using an Image as a Link**

It is common to use images as links:

## Example

<a href="default.asp">  
  <img src="smiley.gif" alt="HTML tutorial" style="width:42px;height:42px;border:0">  
</a>

**Note**: We have added border: 0 to prevent IE9 (and earlier) from displaying a border around the image.

## Image Maps

For an image, you can create an image map, with clickable areas:

## Example

<img src="planets.gif" alt="Planets" usemap="#planetmap" style="width:145px;height:126px">  
  
<map name="planetmap">  
  <area shape="rect" coords="0,0,82,126" alt="Sun" href="sun.htm">  
  <area shape="circle" coords="90,58,3" alt="Mercury" href="mercur.htm">  
  <area shape="circle" coords="124,58,8" alt="Venus" href="venus.htm">  
</map>

## Image Floating

You can let an image float to the left or right of a paragraph:

## Example

<p>  
  <img src="smiley.gif" alt="Smiley face" style="float:left;width:42px;height:42px">  
  A paragraph with an image. The image floats to the left of the text.  
</p>

## Chapter Summary

* Use the HTML **<img>** element to define images
* Use the HTML **src** attribute to define the image file name
* Use the HTML **alt** attribute to define an alternative text
* Use the HTML **width** and **height** attributes to define the image size
* Use the CSS **width** and **height** properties to define the image size (alternatively)
* Use the CSS **float** property to define image floating
* Use the HTML **usemap** attribute to point to an image map
* Use the HTML **<map>** element to define an image map
* Use the HTML **<area>** element to define image map areas